

ABSTRACT

The invention relates to a method for assembling sheets of aluminium alloy, comprising a welding without flux, in a controlled atmosphere, at a temperature of 580 to 620°C, a rapid cooling and, optionally, reheating to a temperature of 80 to 250°C, in which at least one of the sheets has a core alloy comprising (wt. %), Si 0.3 1.0, Fe < 1.0, Cu 0.3 1.0, Mn 0.3 2.0, Mg 0.3 3.0, Zn < 6.0, Ti < 0.1, Zr < 0.3, Cr < 0.3, Ni < 2.0, Co < 2.0, Bi < 0.5, Y < 0.5, other elements < 0.05 each, to a total of 0.15, the remainder being aluminium and covered on at least one face with a welding aluminium alloy, comprising 4 to 15 % silicon and 0.01 to 0.5% of at least one of the elements Ag, Be, Bi, Ce, La, Pb, Pd, Sb, Y or a mixed metal. The method is particularly suitable for the non-flux welding of heat exchangers.